South Dayton Dump & Landfill
RI/FS Scoping Meeting #2
Discussion Topics

Maddie Adams, Allison, Katie, Julian Hayward, Valerie Chan, Barrie Selco, Brett Fishwild, Sarah, Ruth Ann Slotman (new risk assessor)

1. Consider the size of exposure units and the ability to identify/deal with hot spots when determining proposed sample locations and sample density.

They reflected on the discussion and have a proposed sampling plan in all the EUs for multiple purposes, RA as well as leaching to GW. A lot of sampling data that exists over the site, have overlaid with proposed sampling locations, at least for initial characterization phase. Also looking at geophysical investigation that identified anomalies; some anomaly areas are flagged for further investigation. Also looking at distribution of contaminants in GW.

~~1.~~2. Collecting one soil sample from 0-2 and 2-15 may be sufficient for HHRA purposes, but not necessarily for soil leaching. That should be discussed in more detail and the RI work plan should have a leaching investigation, as there is no presumption of a cap over the landfill. Sampling based on exposure unit delineations is appropriate for characterizing waste/soil exposure but not groundwater. Exposure units do not address the leaching to ground water pathway.

Sampling will be down to 15' and greater depths; for example in vadose areas below 15'. Also collecting GW where waste is in water. Leaching analysis will be combination of underlying GW conditions and assessing what is in vadose zone.

Barrie – EPA RA wants 0-6" for risk assessment; internal Region 5 unwritten policy, below 6" is looked at for other scenarios. Sarah – in Ohio, they use 0-2'. Barrie – can handle by collecting 0-6", then 6-24". The question is how to combine the datasets. **Leslie – get more information on the 0-6" policy.

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They have 0-6" samples proposed in the floodplain, but the 0-2' samples are the whole core.

3. Sample density necessary to investigate the heterogeneous nature of the landfill in the exposure units for the risk assessment would depend on the previously collected data and the information that is already known in each exposure unit. The RI/FS WP should have an updated conceptual site model be provided in the RI work plan to further identify the risk pathways, exposure scenarios, and data needs.

EC assumed to be in place. Does this need to be refined. Barrie – you usually do a land use evaluation to see the realistic future land uses.

OH typically doesn't assume pathways will be incomplete up front, unless they are already in place. Need to document that the IC is required.

OU2 residences need to be evaluated.

Will evolve into a discussion that Larry will need to participate in, along with Jim Morris.

The EU map is a starting point for characterizing the site and how to conduct a RA. It may turn out that the EU areas need to be adjusted.

What about sampling parcels with waste/fill at surface? What is the surface sampling plan when it is heterogeneous? Julian – they recognize the issue of heterogeneity, will be a

challenge. Likely samples will be biased toward samples that look impacted, will have to interpret… some parcels will be more heterogeneous than others. They will have to do some kind of mapping to show where waste is exposed and where it is not. There will be some iteration involved, doing a reasonable amount of characterization samples, then if there is variation then more sampling. The WP lays out sampling locations in each of the EUs to come up with a UCL. There would be a TM at each stage and do multiple iterations.

We're going to have discussions on the RA and how far we really have to go to characterize. If we can't really characterize, we might need to discuss a different management approach, back to the ARARs/cover.

4. The limited vadose zone sampling proposed at Valley Asphalt and throughout the landfill area does not fully investigate for waste and leaching to ground water by the landfill material as well as direct contact for the area.

There will be samples below 15' in the vadose zone.

Valley Asphalt – they will propose sampling locations on VA to characterize the material above the water table and groundwater, same approach as elsewhere. There is extreme limitation to what area is accessible, so it is driven to where we can get access, not having to drill through 20 or 50 feet of aggregate. Around the pile, but sampling density is significantly impacted. Maddie – have they considered horizontal drilling? Julian isn't sure it's really possible for environmental samples, they can do some checking to see the capability with their subcontractors. But sample recovery and control you have of sampling discrete intervals would be diminished. Angle boring could be a possibility.

How to evaluate a future scenario where the surface piles and asphalt wouldn't be there? We don't know if the issue of an IC has been raised with Valley Asphalt.

VA is partially on a municipal landfill – can you really characterize? Same problem of heterogeneity of the waste. Could preclude land use. We did see some areas on VA where sampling can occur.

~~2.~~5. Not collecting soil samples at Valley Asphalt because of the current activities neglects potential future land use (i.e. the piles won't always be there).

6. No surface soil 0-2 foot sampling was proposed on the areas covered by asphalt on the Dryden Road properties. This neglects future land use when the surface cover could be removed and this area may have been landfilled.

They looked at the types of cover present on the properties. Building, asphalt, and vegetative cover. They do have 0-2' sampling in areas in particular where there is no asphalt. They will be doing sampling in asphalt areas but that is specifically looking at >2' interval. Julian is struggling to understand why that would occur. Brett – the property could be redeveloped at any time. Maddie – would the asphalt have to be incorporated into the remedy? Construction worker comes into contact with soil right underneath the asphalt. May be they have leftover soil and use it for landscaping or give it to someone else for fill. Julian assumes that any area that has asphalt has compacted material underneath the asphalt that goes down to a foot or two. **Leslie – talk to Keith about this, is field screening enough to evaluate the risk and taking one sample? Julian struggles with the assumption that this could happen. Samples immediately under the asphalt and down to 15' would be the depths we are concerned about. Don't have to sample imported fill. Julian still isn't sure how this data will get used later on.

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7. An investigation is needed on the Quarry Pond to identify the possible drums and other debris and to support an eventual decision about removal of the material. An investigation is needed on the water quality of the Quarry Pond as it is in contact with the first ground water bearing zone and has the potential to further contaminate the ground water and be contaminated by the ground water.

Very limited sediment and surface water samples from the QP, from the 1990s. Isn't it appropriate to sample fish, and not rely on modeling?

What about all the foreign material? There has been bathymetry, sonar investigations, underwater camera.

Right now we don't have a plan to address the challenge of the quarry pond. Tires from Jim City –

There are targets that were identified; what kind of sampling is needed. The WP currently samples around the perimeter of the pond.

Could you dewater the quarry pond? It's not impossible.

2 questions remain – how to address the targets that have been identified, and can we do more sampling in the center of the pond; related to fish and consumption of fish.

8. How to sample in the parcels where waste/fill is at the surface.

Points to follow up on

- 0-6" interval sampling?
- Environmental covenant needed to eliminate residential pathway?
- Reasonable future land use assumptions – what would be the future 0-2' interval? Julian thinks we can work that somehow and relate it to future use scenario.
- Valley Asphalt – no simple answer. Need to look at what they propose. They'll look into it.
- Quarry pond – need underwater camera or divers?
- Heterogeneity – more samples, test pits, etc. will help define but might get to the point where we identified risk but doesn't make sense to try to do more sampling

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